

# Kuipers & Associates

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*Kuipers & Associates, LLC*

Date: August 28, 2009

To: Anaconda Deer Lodge County

From: Kuipers & Associates

Subject: **Ambient Air Quality Monitoring  
Opportunity and Warm Springs Sites  
June 2009 Monthly Report**

This June 2009 report documents the ambient air quality monitoring program conducted by Kuipers & Associates on behalf of Anaconda Deer Lodge County at the Opportunity and Warm Springs locations adjacent to the Atlantic Richfield Lower Waste Management Area (LWMA). Total Suspended Particulate (TSP) is monitored at Opportunity, and PM10 at Warm Springs. Additionally, wind speed, wind direction, temperature and relative humidity are monitored at both sites.

Dustfall jars have been in place since October 17, 2008 at both sites to capture settling dust. Preliminary results for samples collected between January 6 and April 5, 2009 can be summarized as follows. For the three samples collected at Opportunity, the preliminary calculated arsenic concentrations ranged from 122 mg/kg to 268 mg/kg, and the preliminary calculated lead concentrations ranged from 31.7 mg/kg to 154 mg/kg. For the sample collected at Warm Springs, the preliminary calculated arsenic concentration was 140 mg/kg and the preliminary calculated lead concentration was approximately 49.7 mg/kg. In each case, the amount of dust collected was small, which may limit data resolution. However, these results are of similar magnitude to those for previous settled dust samples that were collected using glass dishes. More detailed results will be attached to the monthly report for August 2009.

All data, discussion and conclusions provided in this report are preliminary and will undergo a complete quality assurance review prior to issuance of final results in quarterly and annual reports in accordance with the project Sampling and Analysis Plan. Results for the month are summarized as follows:

- Hourly average data were collected continuously by the monitors from June 1<sup>st</sup> through June 30<sup>th</sup>, with 99.2% availability for TSP at the Opportunity location and 97.6% availability for PM10 at the Warm Springs location.
  - Downtime at the Opportunity location occurred on June 1 from 10:00 MST through 12:00 MST for routine maintenance and troubleshooting. Additional downtime occurred on June 5 at 12:00 MST, on June 12 at 13:00 MST, and on June 22 at 13:00 MST for routine maintenance.
  - Downtime at the Warm Springs location occurred on June 1 at 13:00 MST, on June 5 at 11:00 MST, on June 12 at 12:00 MST, and on June 22 at 13:00 MST for routine

maintenance. Additional downtime occurred from June 15 at 23:00 MST through June 16 at 11:00 MST because of a sampler flow failure.

- The hourly average data record for the month is attached to the end of this report. Current data is available for real-time electronic download on demand, and public viewing at: <http://ka.airsis.com/vision/login.aspx?ReturnUrl=%2fvision%2fDefault.aspx> (Username = ADLC, Password = OCPA).
- Monthly and quarterly air monitoring reports from June 2007 through present are now available on the County's website at: [http://anacondadeerlodge.mt.gov/super/info.aspx#q\\_reports](http://anacondadeerlodge.mt.gov/super/info.aspx#q_reports).
- At the Opportunity location the maximum TSP reading for the period on a daily average basis was 49  $\mu\text{g}/\text{m}^3$ , and the average monthly concentration was 18  $\mu\text{g}/\text{m}^3$ . The maximum reading for the period on an hourly average basis was 415  $\mu\text{g}/\text{m}^3$ . This value was associated with moderate northeast winds. The four highest daily and hourly maximum values are summarized in Table 1, and the average daily data for the month is attached together with meteorological information in Table 3.
- At the Warm Springs location the maximum PM10 reading for the period on a daily average basis was 15  $\mu\text{g}/\text{m}^3$ , and the average monthly concentration was 6  $\mu\text{g}/\text{m}^3$ . The maximum reading for the period on an hourly average basis was 190  $\mu\text{g}/\text{m}^3$ . This value was associated with light west winds. The four highest daily and hourly maximum values are summarized in Table 2, and the average daily data for the month is attached together with meteorological information in Table 4.

**Table 1**  
**Opportunity Site TSP Maximum Data, June 2009**

Maximum	TSP ( $\mu\text{g}/\text{m}^3$ )	Date & Time (MST)	Wind Speed (mph)	Wind Direction (deg)
Daily 1st Max	49	6/25/2009	6.1	315
Daily 2nd Max	35	6/29/2009	4.0	11
Daily 3rd Max	34	6/28/2009	3.8	229
Daily 4th Max	32	6/1/2009	7.4	357
Hourly 1st Max	415	6/13/2009 17:00	6.5	51
Hourly 2nd Max	232	6/3/2009 19:00	6.5	13
Hourly 3rd Max	124	6/1/2009 08:00	12.1	4
Hourly 4th Max	112	6/18/2009 15:00	7.4	31

**Table 2**  
**Warm Springs Site PM10 Maximum Data, June 2009**

Maximum	PM10 ( $\mu\text{g}/\text{m}^3$ )	Date & Time (MST)	Wind Speed (mph)	Wind Direction (deg)
Daily 1st Max	15	6/28/2009	4.9	218
Daily 2nd Max	12	6/16/2009	2.3	341
Daily 3rd Max	10	6/29/2009	2.9	13
Daily 4th Max	10	6/30/2009	3.1	4
Hourly 1st Max	190	6/28/2009 15:00	5.1	265
Hourly 2nd Max	78	6/24/2009 18:00	7.8	216
Hourly 3rd Max	50	6/16/2009 15:00	3.1	330
Hourly 4th Max	50	6/16/2009 22:00	1.6	254

- There are no Montana or Federal air quality standards for TSP; both were replaced by the current PM10 standard in 1987. Prior to 1987 the Montana annual TSP standard was 75  $\mu\text{g}/\text{m}^3$ , the 24-hour standard was 200  $\mu\text{g}/\text{m}^3$  and there was no hourly standard. TSP results for June at Opportunity were well below these historical standards. Monitoring for PM10 from May 2007 through June of 2008 showed that PM10 concentrations were consistently below regulatory levels. To facilitate comparison with previously collected PM10 data, the TSP data are being reported at Local temperature and pressure conditions.
- At the Warm Springs monitoring site daily average PM10 results for the month of June were well below the 24-hour Montana Ambient Air Quality Standard of 150  $\mu\text{g}/\text{m}^3$ . The average monthly concentration was below the annual PM10 standard of 50  $\mu\text{g}/\text{m}^3$ . There currently is no State or Federal standard for hourly PM10 data.
- Precipitation for the month was above average according to Butte airport records.
- Wind roses are attached to graphically depict prevailing winds.
  - Figure 1 shows the Opportunity location, where the predominant wind directions in June were from the southwest quadrant, and from the north and north-northeast.
  - Figure 2 shows the Warm Springs location, where winds were mostly from northerly and southerly directions.
- If a dust storm event or nuisance dust in general is observed, please contact us so that we may respond, and try to quantify and document the problem. We are available seven days per week 24 hours per day and ask that you contact the following (in order) until someone is notified.

**Dust Event Contacts:**

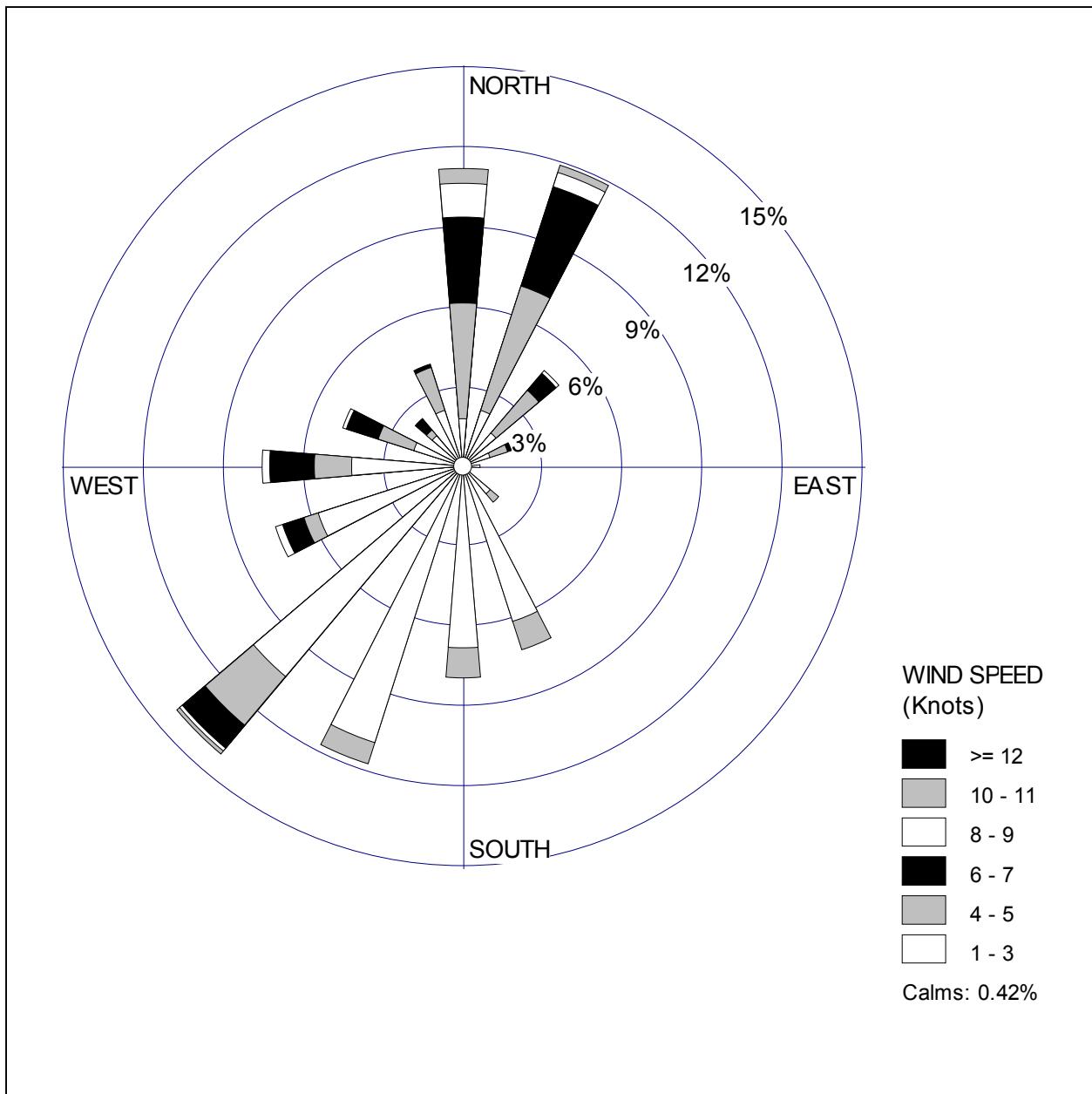
Steve Heck	498-4199
David Dobrinan	490-9205
Jim Kuipers	782-3441, then 459-0445
Sarah Zuzulock	585-9932, then 581-1355

**Table 3**  
**Opportunity Site Daily Average Data**

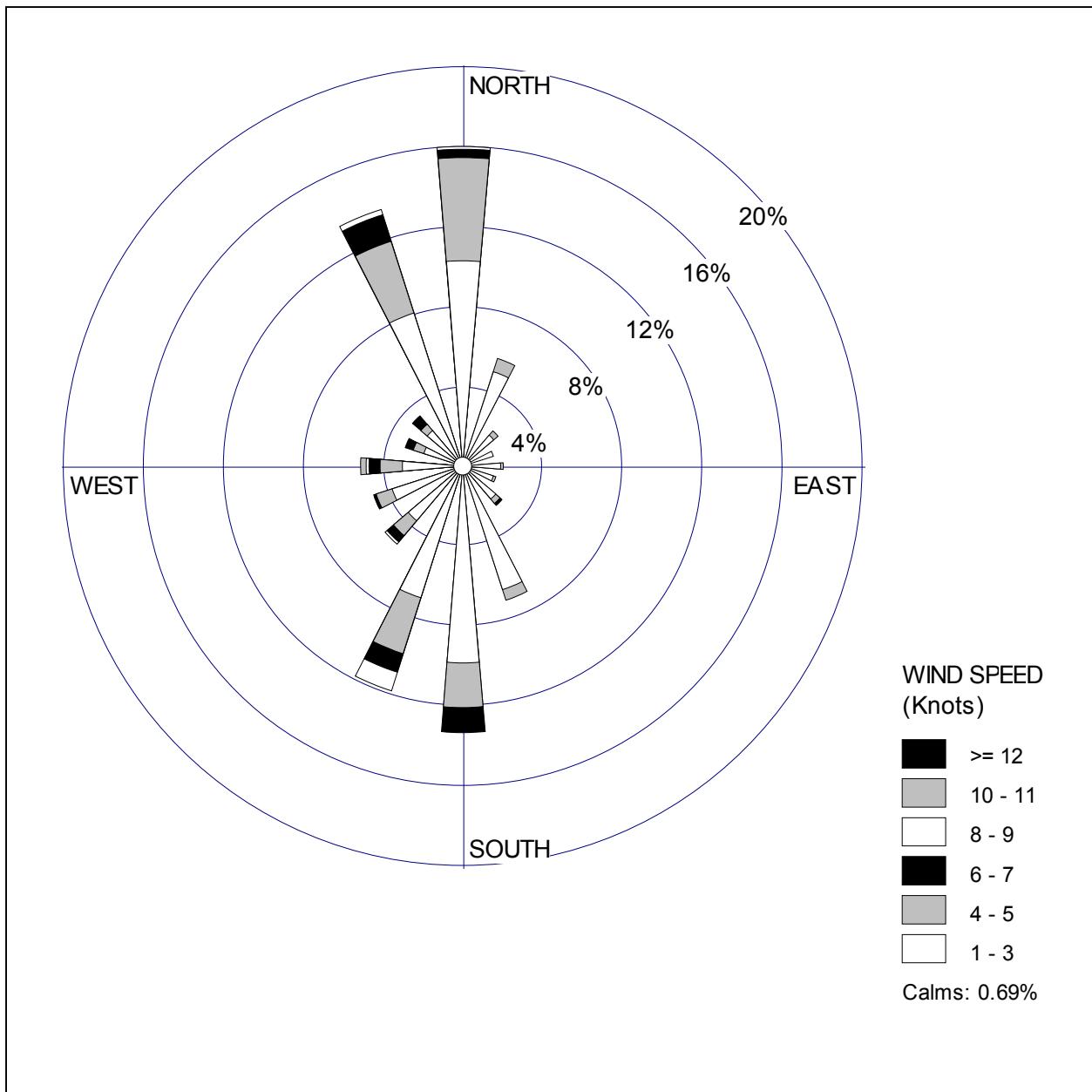
Date	TSP Daily ( $\mu\text{g}/\text{m}^3$ )	Wind Speed Daily (meters per second)	Wind Speed Daily (miles per hour)	Wind Direction Daily (degrees true)	Air Temperature Daily (Celsius)	Air Temperature Daily (Fahrenheit)	Relative Humidity Daily (percent)
June 1, 2009	32	3.3	7.4	357	8.7	47.7	61
June 2, 2009	14	2.0	4.4	20	8.7	47.7	65
June 3, 2009	22	1.4	3.1	178	13.1	55.5	59
June 4, 2009	13	1.3	2.9	196	12.1	53.8	71
June 5, 2009	15	1.4	3.2	149	13.1	55.6	73
June 6, 2009	4	2.9	6.4	360	4.6	40.3	79
June 7, 2009	5	2.0	4.4	359	4.7	40.4	66
June 8, 2009	7	2.1	4.8	9	4.8	40.7	79
June 9, 2009	6	1.5	3.3	9	8.0	46.4	66
June 10, 2009	16	1.7	3.8	15	10.6	51.1	57
June 11, 2009	21	1.6	3.6	12	11.8	53.2	53
June 12, 2009	21	1.7	3.8	139	13.7	56.7	48
June 13, 2009	30	1.7	3.8	193	14.9	58.8	53
June 14, 2009	10	1.6	3.6	226	13.9	57.0	66
June 15, 2009	6	1.3	2.9	21	12.4	54.3	80
June 16, 2009	21	1.5	3.3	55	14.5	58.1	69
June 17, 2009	11	1.8	4.0	255	13.9	57.0	69
June 18, 2009	21	1.8	4.0	337	12.1	53.7	67
June 19, 2009	14	2.4	5.3	274	13.2	55.8	64
June 20, 2009	4	0.8	1.7	245	10.1	50.2	84
June 21, 2009	6	2.1	4.7	287	12.3	54.2	70
June 22, 2009	2	2.2	4.9	257	7.9	46.2	67
June 23, 2009	10	1.7	3.8	207	11.8	53.2	53
June 24, 2009	23	2.1	4.8	224	17.0	62.5	45
June 25, 2009	49	2.7	6.1	315	19.8	67.6	40
June 26, 2009	25	2.1	4.7	307	13.5	56.3	48
June 27, 2009	21	2.1	4.8	293	14.2	57.5	44
June 28, 2009	34	1.7	3.8	229	18.5	65.3	41
June 29, 2009	35	1.8	4.0	11	17.6	63.6	49
June 30, 2009	31	2.3	5.1	12	17.5	63.5	45

**Table 4**  
**Warm Springs Site Daily Average Data**

Date	PM10 Daily ( $\mu\text{g}/\text{m}^3$ )	Wind Speed Daily (meters per second)	Wind Speed Daily (miles per hour)	Wind Direction Daily (degrees true)	Air Temperature Daily (Celsius)	Air Temperature Daily (Fahrenheit)	Relative Humidity Daily (percent)
June 1, 2009	8	2.6	5.7	338	9.9	49.7	60
June 2, 2009	5	1.6	3.7	298	9.5	49.1	65
June 3, 2009	3	1.2	2.7	252	13.5	56.2	58
June 4, 2009	7	1.4	3.2	200	13.2	55.7	69
June 5, 2009	9	1.2	2.7	274	13.6	56.5	73
June 6, 2009	5	2.1	4.7	353	5.4	41.6	77
June 7, 2009	2	1.8	4.0	339	5.6	42.1	64
June 8, 2009	4	1.4	3.2	354	5.4	41.7	78
June 9, 2009	4	1.2	2.7	1	8.6	47.5	65
June 10, 2009	4	1.3	2.9	358	11.3	52.3	57
June 11, 2009	6	1.3	2.9	346	12.6	54.6	53
June 12, 2009	8	1.7	3.9	149	14.5	58.1	48
June 13, 2009	6	1.6	3.7	200	15.2	59.4	54
June 14, 2009	4	1.7	3.7	186	14.3	57.7	67
June 15, 2009	4	1.0	2.2	119	12.8	55.0	81
June 16, 2009	12	1.0	2.3	341	14.4	58.0	70
June 17, 2009	7	1.5	3.4	213	14.5	58.0	69
June 18, 2009	4	1.0	2.3	25	12.3	54.1	70
June 19, 2009	7	2.1	4.7	205	13.9	57.0	64
June 20, 2009	3	0.9	1.9	277	10.7	51.3	83
June 21, 2009	3	1.5	3.3	318	12.7	54.9	74
June 22, 2009	1	2.5	5.7	249	8.9	48.1	65
June 23, 2009	3	1.8	4.0	191	12.2	54.0	54
June 24, 2009	9	2.7	6.1	199	17.3	63.2	46
June 25, 2009	9	1.7	3.9	36	19.2	66.5	43
June 26, 2009	8	1.8	4.1	318	13.7	56.6	37
June 27, 2009	9	2.0	4.5	258	14.8	58.6	30
June 28, 2009	15	2.2	4.9	218	19.1	66.3	NO DATA
June 29, 2009	10	1.3	2.9	13	18.5	65.3	37
June 30, 2009	10	1.4	3.1	4	17.8	64.0	47



**Figure 1. Wind Rose (percent of time blowing from indicated direction) for Opportunity EBAM Site June 2009.**



**Figure 2. Wind Rose (percent of time blowing from indicated direction) for Warm Springs EBAM Site June 2009.**

**Table 5**  
**Opportunity Site Hourly Average Data**  
**Met One E-BAM**  
**June 2009**

Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m³)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/1/2009 1:00	22	1.1	2.5	140	9.0	48.2	55
6/1/2009 2:00	9	1.1	2.5	184	7.1	44.8	62
6/1/2009 3:00	5	0.9	2.0	196	6.7	44.1	63
6/1/2009 4:00	17	2.0	4.5	191	7.7	45.9	59
6/1/2009 5:00	50	4.5	10.1	1	9.2	48.6	64
6/1/2009 6:00	59	4.3	9.6	354	8.6	47.5	64
6/1/2009 7:00	60	5.1	11.4	356	8.6	47.5	61
6/1/2009 8:00	124	5.4	12.1	4	9.3	48.7	56
6/1/2009 9:00	110	4.6	10.3	351	9.5	49.1	55
6/1/2009 10:00	BA	BA	BA	BA	BA	BA	BA
6/1/2009 11:00	BA	BA	BA	BA	BA	BA	BA
6/1/2009 12:00	BA	BA	BA	BA	BA	BA	BA
6/1/2009 13:00	27	3.3	7.4	353	10.2	50.4	56
6/1/2009 14:00	24	3.6	8.1	2	10.1	50.2	58
6/1/2009 15:00	17	3.2	7.2	4	10.1	50.2	59
6/1/2009 16:00	29	3.4	7.6	351	10.3	50.5	58
6/1/2009 17:00	17	4.0	8.9	351	10.0	50.0	59
6/1/2009 18:00	22	4.0	8.9	351	9.2	48.6	63
6/1/2009 19:00	13	3.9	8.7	357	8.7	47.7	63
6/1/2009 20:00	14	2.9	6.5	346	8.2	46.8	64
6/1/2009 21:00	24	2.6	5.8	357	8.1	46.6	65
6/1/2009 22:00	10	2.9	6.5	5	7.8	46.0	65
6/1/2009 23:00	15	2.9	6.5	4	7.6	45.7	66
6/2/2009 0:00	7	3.8	8.5	5	7.2	45.0	68
6/2/2009 1:00	13	3.9	8.7	5	6.9	44.4	68
6/2/2009 2:00	5	3.5	7.8	1	6.7	44.1	70
6/2/2009 3:00	15	3.3	7.4	6	6.7	44.1	71
6/2/2009 4:00	5	2.9	6.5	8	6.7	44.1	70
6/2/2009 5:00	13	2.5	5.6	356	6.6	43.9	70
6/2/2009 6:00	15	2.5	5.6	351	6.6	43.9	69
6/2/2009 7:00	10	2.6	5.8	355	6.8	44.2	69
6/2/2009 8:00	15	2.2	4.9	2	7.2	45.0	67
6/2/2009 9:00	6	2.4	5.4	12	7.9	46.2	64
6/2/2009 10:00	8	2.2	4.9	14	8.8	47.8	61
6/2/2009 11:00	13	1.7	3.8	12	9.6	49.3	59
6/2/2009 12:00	13	1.1	2.5	332	10.0	50.0	58
6/2/2009 13:00	20	1.2	2.7	178	10.0	50.0	59
6/2/2009 14:00	13	1.0	2.2	200	10.4	50.7	59
6/2/2009 15:00	21	1.3	2.9	178	11.3	52.3	57
6/2/2009 16:00	14	1.0	2.2	213	11.2	52.2	58
6/2/2009 17:00	44	1.5	3.4	177	11.1	52.0	60
6/2/2009 18:00	15	1.9	4.3	157	10.7	51.3	63
6/2/2009 19:00	12	1.8	4.0	155	10.2	50.4	64
6/2/2009 20:00	7	1.6	3.6	156	9.9	49.8	66
6/2/2009 21:00	26	1.4	3.1	151	9.2	48.6	69
6/2/2009 22:00	6	1.6	3.6	144	8.8	47.8	71
6/2/2009 23:00	11	1.2	2.7	142	8.4	47.1	73
6/3/2009 0:00	5	1.0	2.2	148	8.2	46.8	73
6/3/2009 1:00	11	0.8	1.8	178	7.9	46.2	74
6/3/2009 2:00	6	0.7	1.6	225	7.5	45.5	77
6/3/2009 3:00	-2	0.6	1.3	225	7.1	44.8	80
6/3/2009 4:00	13	0.7	1.6	239	6.2	43.2	83
6/3/2009 5:00	-3	0.7	1.6	241	6.2	43.2	82
6/3/2009 6:00	-5	0.7	1.6	256	5.6	42.1	83
6/3/2009 7:00	18	0.7	1.6	71	8.3	46.9	72
6/3/2009 8:00	7	0.8	1.8	300	9.3	48.7	68
6/3/2009 9:00	15	0.9	2.0	105	10.7	51.3	61
6/3/2009 10:00	7	1.1	2.5	190	11.9	53.4	57
6/3/2009 11:00	10	1.6	3.6	176	13.6	56.5	51
6/3/2009 12:00	8	2.0	4.5	171	15.6	60.1	47
6/3/2009 13:00	13	1.8	4.0	176	17.3	63.1	44
6/3/2009 14:00	22	1.9	4.3	234	18.4	65.1	44
6/3/2009 15:00	13	1.9	4.3	172	19.7	67.5	41
6/3/2009 16:00	10	1.8	4.0	154	20.5	68.9	37
6/3/2009 17:00	15	1.6	3.6	72	21.0	69.8	35
6/3/2009 18:00	36	2.1	4.7	32	20.8	69.4	35
6/3/2009 19:00	232	2.9	6.5	13	19.9	67.8	39
6/3/2009 20:00	39	2.5	5.6	14	18.4	65.1	43
6/3/2009 21:00	30	1.4	3.1	217	15.3	59.5	54
6/3/2009 22:00	20	2.2	4.9	149	13.9	57.0	57
6/3/2009 23:00	6	1.0	2.2	230	10.3	50.5	71
6/4/2009 0:00	13	1.2	2.7	240	8.0	46.4	77
6/4/2009 1:00	9	0.7	1.6	195	5.8	42.4	84
6/4/2009 2:00	-5	0.6	1.3	242	4.1	39.4	89
6/4/2009 3:00	-5	0.7	1.6	235	3.8	38.8	90
6/4/2009 4:00	9	0.8	1.8	199	4.5	40.1	88
6/4/2009 5:00	3	0.9	2.0	207	4.1	39.4	88
6/4/2009 6:00	8	0.8	1.8	228	5.1	41.2	82
6/4/2009 7:00	27	1.2	2.7	206	9.6	49.3	68
6/4/2009 8:00	15	1.6	3.6	175	13.1	55.6	58

Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/4/2009 9:00	25	1.3	2.9	212	13.7	56.7	59
6/4/2009 10:00	12	1.5	3.4	162	16.9	62.4	51
6/4/2009 11:00	8	1.2	2.7	63	19.7	67.5	42
6/4/2009 12:00	34	1.6	3.6	305	18.7	65.7	48
6/4/2009 13:00	12	2.3	5.1	316	17.5	63.5	54
6/4/2009 14:00	35	3.7	8.3	14	18.2	64.8	50
6/4/2009 15:00	26	1.5	3.4	318	16.5	61.7	56
6/4/2009 16:00	12	1.2	2.7	172	14.9	58.8	76
6/4/2009 17:00	5	1.7	3.8	157	14.2	57.6	80
6/4/2009 18:00	21	1.4	3.1	170	14.8	58.6	74
6/4/2009 19:00	5	0.9	2.0	154	14.8	58.6	74
6/4/2009 20:00	53	1.0	2.2	81	14.0	57.2	75
6/4/2009 21:00	7	1.7	3.8	152	12.9	55.2	75
6/4/2009 22:00	0	0.9	2.0	162	11.8	53.2	80
6/4/2009 23:00	5	0.8	1.8	200	10.9	51.6	85
6/5/2009 0:00	-3	1.3	2.9	224	11.5	52.7	79
6/5/2009 1:00	6	2.9	6.5	144	11.9	53.4	77
6/5/2009 2:00	8	1.1	2.5	205	11.1	52.0	80
6/5/2009 3:00	7	0.7	1.6	210	10.8	51.4	81
6/5/2009 4:00	3	0.9	2.0	263	10.1	50.2	86
6/5/2009 5:00	8	1.0	2.2	230	9.9	49.8	85
6/5/2009 6:00	3	0.9	2.0	194	8.9	48.0	86
6/5/2009 7:00	-3	0.8	1.8	239	10.5	50.9	78
6/5/2009 8:00	1	1.2	2.7	207	13.9	57.0	64
6/5/2009 9:00	9	1.9	4.3	153	15.1	59.2	61
6/5/2009 10:00	10	2.4	5.4	152	17.0	62.6	53
6/5/2009 11:00	21	2.2	4.9	175	18.4	65.1	47
6/5/2009 12:00	BA	1.9	4.3	47	19.6	67.3	44
6/5/2009 13:00	82	1.8	4.0	49	20.3	68.5	44
6/5/2009 14:00	45	1.9	4.3	29	19.9	67.8	47
6/5/2009 15:00	98	3.3	7.4	26	16.8	62.2	56
6/5/2009 16:00	7	2.1	4.7	338	13.3	55.9	75
6/5/2009 17:00	14	1.8	4.0	12	12.1	53.8	85
6/5/2009 18:00	3	0.9	2.0	134	11.4	52.5	87
6/5/2009 19:00	14	0.7	1.6	212	11.2	52.2	88
6/5/2009 20:00	-3	0.9	2.0	279	11.3	52.3	86
6/5/2009 21:00	0	0.6	1.3	268	10.7	51.3	87
6/5/2009 22:00	13	0.5	1.1	227	10.1	50.2	90
6/5/2009 23:00	4	0.8	1.8	189	10.1	50.2	89
6/6/2009 0:00	-2	1.3	2.9	160	10.2	50.4	83
6/6/2009 1:00	4	0.8	1.8	181	9.8	49.6	87
6/6/2009 2:00	4	1.1	2.5	21	8.6	47.5	90
6/6/2009 3:00	-3	2.5	5.6	351	7.3	45.1	90
6/6/2009 4:00	4	3.3	7.4	25	5.6	42.1	87
6/6/2009 5:00	26	1.6	3.6	16	5	41.0	84
6/6/2009 6:00	17	0.7	1.6	273	4.6	40.3	84
6/6/2009 7:00	0	1.1	2.5	347	5.2	41.4	81
6/6/2009 8:00	10	2.0	4.5	13	5.8	42.4	80
6/6/2009 9:00	-5	3.0	6.7	22	5.3	41.5	81
6/6/2009 10:00	5	4.5	10.1	10	4.2	39.6	81
6/6/2009 11:00	5	5.4	12.1	359	1.0	33.8	88
6/6/2009 12:00	-5	2.9	6.5	343	1.2	34.2	90
6/6/2009 13:00	20	3.2	7.2	360	3.0	37.4	84
6/6/2009 14:00	-5	3.6	8.1	353	4.5	40.1	74
6/6/2009 15:00	1	3.9	8.7	355	5.3	41.5	69
6/6/2009 16:00	4	4.0	8.9	1	6.0	42.8	67
6/6/2009 17:00	-3	4.1	9.2	6	5.2	41.4	69
6/6/2009 18:00	0	3.9	8.7	4	4.8	40.6	68
6/6/2009 19:00	-5	3.6	8.1	1	4.4	39.9	70
6/6/2009 20:00	12	3.1	6.9	348	3.7	38.7	75
6/6/2009 21:00	-5	2.9	6.5	347	3.1	37.6	76
6/6/2009 22:00	12	2.5	5.6	351	2.6	36.7	77
6/6/2009 23:00	0	2.5	5.6	345	2.5	36.5	76
6/7/2009 0:00	2	2.3	5.1	346	2.5	36.5	75
6/7/2009 1:00	-1	2.6	5.8	345	2.3	36.1	74
6/7/2009 2:00	1	3.0	6.7	353	2.0	35.6	74
6/7/2009 3:00	-4	3.0	6.7	2	1.8	35.2	75
6/7/2009 4:00	4	2.7	6.0	0	1.6	34.9	74
6/7/2009 5:00	8	2.5	5.6	14	1.4	34.5	74
6/7/2009 6:00	2	1.9	4.3	6	1.3	34.3	75
6/7/2009 7:00	1	2.2	4.9	11	1.6	34.9	74
6/7/2009 8:00	4	2.5	5.6	10	2.1	35.8	72
6/7/2009 9:00	-3	2.7	6.0	6	2.8	37.0	71
6/7/2009 10:00	27	2.5	5.6	5	4.0	39.2	68
6/7/2009 11:00	-5	1.7	3.8	24	5.4	41.7	60
6/7/2009 12:00	22	1.4	3.1	13	6.7	44.1	55
6/7/2009 13:00	-5	1.6	3.6	343	7.6	45.7	55
6/7/2009 14:00	-1	2.4	5.4	15	8.8	47.8	54
6/7/2009 15:00	25	2.9	6.5	350	8.4	47.1	54
6/7/2009 16:00	-5	2.1	4.7	1	9.4	48.9	51
6/7/2009 17:00	14	2.7	6.0	9	9.7	49.5	46
6/7/2009 18:00	-3	1.5	3.4	336	8.7	47.7	50
6/7/2009 19:00	-3	1.7	3.8	346	8.0	46.4	52
6/7/2009 20:00	10	1.0	2.2	316	7.1	44.8	57
6/7/2009 21:00	1	0.8	1.8	233	4.4	39.9	73
6/7/2009 22:00	12	1.0	2.2	214	3.5	38.3	78

Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/7/2009 23:00	9	0.6	1.3	331	2.1	35.8	81
6/8/2009 0:00	2	0.7	1.6	187	1.8	35.2	85
6/8/2009 1:00	0	0.6	1.3	238	1.6	34.9	87
6/8/2009 2:00	5	0.6	1.3	270	1.1	34.0	89
6/8/2009 3:00	18	0.8	1.8	245	1.0	33.8	88
6/8/2009 4:00	-5	0.6	1.3	275	-0.6	30.9	90
6/8/2009 5:00	11	0.9	2.0	246	0.8	33.4	86
6/8/2009 6:00	3	0.8	1.8	166	2.2	36.0	84
6/8/2009 7:00	11	1	2.2	212	4.1	39.4	76
6/8/2009 8:00	16	1.5	3.4	73	5.1	41.2	75
6/8/2009 9:00	-4	2.5	5.6	18	4.8	40.6	80
6/8/2009 10:00	29	2.7	6.0	13	4.6	40.3	84
6/8/2009 11:00	8	3.2	7.2	11	5.8	42.4	80
6/8/2009 12:00	18	3.5	7.8	18	6.6	43.9	77
6/8/2009 13:00	15	3.5	7.8	17	7.2	45.0	73
6/8/2009 14:00	18	3.2	7.2	22	7.7	45.9	72
6/8/2009 15:00	10	2.7	6.0	20	8.8	47.8	65
6/8/2009 16:00	1	2.0	4.5	15	10.3	50.5	57
6/8/2009 17:00	4	1.8	4.0	5	10.5	50.9	56
6/8/2009 18:00	0	2.9	6.5	354	9.0	48.2	65
6/8/2009 19:00	4	4.0	8.9	13	6.9	44.4	77
6/8/2009 20:00	2	4.3	9.6	5	4.9	40.8	83
6/8/2009 21:00	0	2.7	6.0	8	3.8	38.8	88
6/8/2009 22:00	0	2.2	4.9	5	3.3	37.9	88
6/8/2009 23:00	-2	1.9	4.3	9	3.0	37.4	88
6/9/2009 0:00	-3	1.5	3.4	7	2.9	37.2	88
6/9/2009 1:00	10	0.7	1.6	338	2.7	36.9	89
6/9/2009 2:00	1	0.9	2.0	353	2.8	37.0	88
6/9/2009 3:00	-3	0.8	1.8	334	2.7	36.9	89
6/9/2009 4:00	-5	0.6	1.3	263	2.6	36.7	88
6/9/2009 5:00	-2	0.4	0.9	263	2.7	36.9	89
6/9/2009 6:00	30	0.4	0.9	278	3.0	37.4	87
6/9/2009 7:00	-5	0.7	1.6	251	4.0	39.2	81
6/9/2009 8:00	-3	1.1	2.5	191	5.4	41.7	73
6/9/2009 9:00	1	1.2	2.7	193	6.2	43.2	68
6/9/2009 10:00	-4	1.2	2.7	139	7.7	45.9	61
6/9/2009 11:00	5	1.6	3.6	45	9.4	48.9	58
6/9/2009 12:00	3	1.9	4.3	25	10.4	50.7	51
6/9/2009 13:00	11	2.3	5.1	38	12.0	53.6	50
6/9/2009 14:00	9	2.6	5.8	35	12.7	54.9	48
6/9/2009 15:00	13	2.4	5.4	32	13.4	56.1	46
6/9/2009 16:00	16	2.7	6.0	19	14.3	57.7	43
6/9/2009 17:00	8	3.2	7.2	15	14.4	57.9	42
6/9/2009 18:00	4	3.1	6.9	5	14.3	57.7	41
6/9/2009 19:00	7	3.1	6.9	8	13.7	56.7	42
6/9/2009 20:00	18	2.0	4.5	350	12.0	53.6	49
6/9/2009 21:00	11	0.6	1.3	267	9.6	49.3	60
6/9/2009 22:00	9	1.0	2.2	234	7.7	45.9	70
6/9/2009 23:00	3	0.8	1.8	213	4.5	40.1	81
6/10/2009 0:00	1	0.6	1.3	245	3.5	38.3	85
6/10/2009 1:00	12	0.6	1.3	200	4.3	39.7	84
6/10/2009 2:00	9	0.8	1.8	259	4.8	40.6	83
6/10/2009 3:00	-5	0.7	1.6	269	4.0	39.2	83
6/10/2009 4:00	0	1.1	2.5	263	2.9	37.2	84
6/10/2009 5:00	9	1.0	2.2	238	1.3	34.3	86
6/10/2009 6:00	-2	1.1	2.5	243	0.9	33.6	88
6/10/2009 7:00	21	0.6	1.3	24	4.8	40.6	73
6/10/2009 8:00	8	1.6	3.6	20	8.0	46.4	63
6/10/2009 9:00	19	1.8	4.0	12	9.4	48.9	62
6/10/2009 10:00	15	1.5	3.4	34	11.4	52.5	55
6/10/2009 11:00	12	1.7	3.8	51	13.0	55.4	51
6/10/2009 12:00	10	2.4	5.4	52	14.6	58.3	43
6/10/2009 13:00	15	2.7	6.0	35	15.9	60.6	36
6/10/2009 14:00	25	3.4	7.6	20	16.7	62.1	36
6/10/2009 15:00	24	3.2	7.2	18	17.3	63.1	35
6/10/2009 16:00	89	3.7	8.3	23	17.6	63.7	33
6/10/2009 17:00	45	3.0	6.7	20	18.0	64.4	31
6/10/2009 18:00	7	2.9	6.5	2	16.6	61.9	31
6/10/2009 19:00	8	1.8	4.0	3	15.6	60.1	36
6/10/2009 20:00	25	1.5	3.4	147	14.9	58.8	45
6/10/2009 21:00	8	1.0	2.2	113	13.5	56.3	50
6/10/2009 22:00	11	0.9	2.0	258	11.7	53.1	58
6/10/2009 23:00	14	0.9	2.0	343	10.4	50.7	58
6/11/2009 0:00	9	1.1	2.5	254	7.0	44.6	71
6/11/2009 1:00	-5	0.7	1.6	219	4.4	39.9	82
6/11/2009 2:00	27	0.9	2.0	237	3.2	37.8	86
6/11/2009 3:00	-5	0.6	1.3	233	2.2	36.0	88
6/11/2009 4:00	11	0.9	2.0	233	2.6	36.7	85
6/11/2009 5:00	5	0.7	1.6	235	3.5	38.3	84
6/11/2009 6:00	27	0.8	1.8	194	4.7	40.5	77
6/11/2009 7:00	2	1.1	2.5	150	7.9	46.2	67
6/11/2009 8:00	9	0.8	1.8	231	10.8	51.4	56
6/11/2009 9:00	16	1.1	2.5	46	12.7	54.9	49
6/11/2009 10:00	18	1.8	4.0	19	14.1	57.4	48
6/11/2009 11:00	12	2.1	4.7	9	15.7	60.3	41

Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/11/2009 12:00	3	2.3	5.1	26	17.1	62.8	36
6/11/2009 13:00	15	2.5	5.6	49	17.9	64.2	33
6/11/2009 14:00	15	2.6	5.8	21	18.9	66.0	28
6/11/2009 15:00	70	2.1	4.7	20	19.6	67.3	23
6/11/2009 16:00	63	2.3	5.1	50	19.9	67.8	20
6/11/2009 17:00	35	3.0	6.7	21	19.7	67.5	22
6/11/2009 18:00	80	3.1	6.9	9	19.2	66.6	24
6/11/2009 19:00	28	3.3	7.4	13	18.6	65.5	26
6/11/2009 20:00	7	1.9	4.3	360	16.0	60.8	37
6/11/2009 21:00	25	0.8	1.8	274	13.2	55.8	48
6/11/2009 22:00	24	1.0	2.2	227	9.3	48.7	63
6/11/2009 23:00	-4	0.9	2.0	237	6.1	43.0	76
6/12/2009 0:00	21	0.9	2.0	234	5.0	41.0	77
6/12/2009 1:00	17	1.0	2.2	236	5.2	41.4	74
6/12/2009 2:00	-5	1.2	2.7	215	3.9	39.0	78
6/12/2009 3:00	9	1.0	2.2	224	2.5	36.5	82
6/12/2009 4:00	3	0.9	2.0	223	2.3	36.1	82
6/12/2009 5:00	7	0.9	2.0	221	2.9	37.2	79
6/12/2009 6:00	25	1.0	2.2	208	4.5	40.1	71
6/12/2009 7:00	9	1.5	3.4	179	8.3	46.9	60
6/12/2009 8:00	15	1.7	3.8	172	11.6	52.9	52
6/12/2009 9:00	7	1.5	3.4	164	14.9	58.8	44
6/12/2009 10:00	10	1.1	2.5	156	17.8	64.0	35
6/12/2009 11:00	12	1.5	3.4	78	19.4	66.9	25
6/12/2009 12:00	15	2.0	4.5	29	20.1	68.2	23
6/12/2009 13:00	BA	1.9	4.3	320	20.7	69.3	23
6/12/2009 14:00	15	1.6	3.6	41	21.8	71.2	20
6/12/2009 15:00	26	2.0	4.5	55	22.6	72.7	20
6/12/2009 16:00	31	2.9	6.5	68	22.5	72.5	25
6/12/2009 17:00	39	2.9	6.5	60	22.2	72.0	26
6/12/2009 18:00	23	3.0	6.7	26	21.2	70.2	27
6/12/2009 19:00	95	1.9	4.3	79	19.1	66.4	34
6/12/2009 20:00	50	2.5	5.6	210	16.6	61.9	41
6/12/2009 21:00	39	2.9	6.5	210	15.3	59.5	46
6/12/2009 22:00	13	1.3	2.9	191	13.8	56.8	52
6/12/2009 23:00	19	1.0	2.2	188	11.6	52.9	60
6/13/2009 0:00	11	1.2	2.7	242	9.0	48.2	69
6/13/2009 1:00	8	1.3	2.9	236	8.4	47.1	71
6/13/2009 2:00	4	1.5	3.4	210	8.5	47.3	69
6/13/2009 3:00	5	1.3	2.9	197	7.4	45.3	73
6/13/2009 4:00	2	1.3	2.9	196	7.5	45.5	72
6/13/2009 5:00	6	1.4	3.1	206	6.9	44.4	74
6/13/2009 6:00	17	1.2	2.7	224	7.0	44.6	72
6/13/2009 7:00	4	1.3	2.9	203	10.0	50.0	62
6/13/2009 8:00	28	2.0	4.5	185	13.3	55.9	55
6/13/2009 9:00	7	1.8	4.0	183	16.1	61.0	49
6/13/2009 10:00	-3	1.5	3.4	159	18.3	64.9	42
6/13/2009 11:00	11	1.4	3.1	149	19.8	67.6	34
6/13/2009 12:00	-5	1.4	3.1	157	21.1	70.0	31
6/13/2009 13:00	12	1.8	4.0	189	21.8	71.2	30
6/13/2009 14:00	35	1.9	4.3	157	21.9	71.4	32
6/13/2009 15:00	29	2.1	4.7	161	23.1	73.6	28
6/13/2009 16:00	24	2.3	5.1	155	24.1	75.4	27
6/13/2009 17:00	415	2.9	6.5	51	21.2	70.2	37
6/13/2009 18:00	28	2.7	6.0	305	19.2	66.6	42
6/13/2009 19:00	28	3.4	7.6	272	17.8	64.0	48
6/13/2009 20:00	33	1.3	2.9	179	16.1	61.0	53
6/13/2009 21:00	15	1.5	3.4	157	14.0	57.2	63
6/13/2009 22:00	16	1.3	2.9	210	12.5	54.5	68
6/13/2009 23:00	-3	1.0	2.2	234	11.0	51.8	73
6/14/2009 0:00	7	1.0	2.2	217	9.9	49.8	77
6/14/2009 1:00	2	1.2	2.7	220	9.2	48.6	78
6/14/2009 2:00	-2	1.2	2.7	206	9.6	49.3	76
6/14/2009 3:00	10	1.3	2.9	203	9.5	49.1	78
6/14/2009 4:00	-2	1.2	2.7	211	9.9	49.8	76
6/14/2009 5:00	6	1.1	2.5	223	9.9	49.8	77
6/14/2009 6:00	14	1.1	2.5	229	10.0	50.0	76
6/14/2009 7:00	12	0.9	2.0	192	11.2	52.2	72
6/14/2009 8:00	-5	1.6	3.6	169	14.4	57.9	60
6/14/2009 9:00	6	1.3	2.9	152	17.8	64.0	48
6/14/2009 10:00	6	1.4	3.1	203	18.8	65.8	44
6/14/2009 11:00	17	2.2	4.9	227	19.6	67.3	45
6/14/2009 12:00	4	2.2	4.9	235	19.8	67.6	45
6/14/2009 13:00	69	3.1	6.9	65	17.8	64.0	51
6/14/2009 14:00	6	2.9	6.5	237	16.2	61.2	58
6/14/2009 15:00	10	2.7	6.0	272	16.9	62.4	56
6/14/2009 16:00	3	1.6	3.6	272	18.7	65.7	46
6/14/2009 17:00	12	1.3	2.9	198	19.0	66.2	48
6/14/2009 18:00	48	1.9	4.3	233	18.3	64.9	50
6/14/2009 19:00	11	3.2	7.2	240	14.7	58.5	64
6/14/2009 20:00	2	1.7	3.8	253	12.1	53.8	80
6/14/2009 21:00	0	1.6	3.6	299	11.6	52.9	84
6/14/2009 22:00	13	0.6	1.3	208	10.4	50.7	91
6/14/2009 23:00	-3	0.8	1.8	201	9.4	48.9	91
6/15/2009 0:00	5	0.9	2.0	226	8.1	46.6	92



Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/18/2009 15:00	112	3.3	7.4	31	17.0	62.6	48
6/18/2009 16:00	38	2.4	5.4	50	17.1	62.8	48
6/18/2009 17:00	24	1.5	3.4	95	16.9	62.4	48
6/18/2009 18:00	77	2.4	5.4	39	17.9	64.2	45
6/18/2009 19:00	9	2.1	4.7	25	17.6	63.7	45
6/18/2009 20:00	30	1.0	2.2	341	15.4	59.7	54
6/18/2009 21:00	24	1.2	2.7	235	12.1	53.8	69
6/18/2009 22:00	3	0.7	1.6	210	9.3	48.7	77
6/18/2009 23:00	13	0.9	2.0	199	7.2	45.0	83
6/19/2009 0:00	8	1.1	2.5	222	7.2	45.0	81
6/19/2009 1:00	8	1.0	2.2	217	5.8	42.4	86
6/19/2009 2:00	12	0.9	2.0	211	5.5	41.9	86
6/19/2009 3:00	7	0.9	2.0	201	6.0	42.8	84
6/19/2009 4:00	6	1.2	2.7	191	7.3	45.1	79
6/19/2009 5:00	12	1.4	3.1	200	7.0	44.6	80
6/19/2009 6:00	27	1.3	2.9	212	8.2	46.8	73
6/19/2009 7:00	10	1.8	4.0	188	10.0	50.0	67
6/19/2009 8:00	14	2.1	4.7	160	13.2	55.8	59
6/19/2009 9:00	15	2.1	4.7	169	16.4	61.5	50
6/19/2009 10:00	23	2.0	4.5	198	18.1	64.6	41
6/19/2009 11:00	23	2.2	4.9	220	19.1	66.4	36
6/19/2009 12:00	30	3.4	7.6	234	19.8	67.6	32
6/19/2009 13:00	29	4.1	9.2	245	20.1	68.2	33
6/19/2009 14:00	13	3.6	8.1	243	20.7	69.3	32
6/19/2009 15:00	20	3.2	7.2	272	20.1	68.2	37
6/19/2009 16:00	34	4.5	10.1	20	18.6	65.5	49
6/19/2009 17:00	25	3.8	8.5	19	18.3	64.9	51
6/19/2009 18:00	4	2.4	5.4	6	15	59.0	70
6/19/2009 19:00	-2	3.8	8.5	40	13.6	56.5	76
6/19/2009 20:00	13	3.9	8.7	35	12.2	54.0	79
6/19/2009 21:00	7	3.4	7.6	20	11.3	52.3	82
6/19/2009 22:00	4	2.2	4.9	15	10.9	51.6	82
6/19/2009 23:00	-1	0.9	2.0	275	10.0	50.0	89
6/20/2009 0:00	2	0.7	1.6	237	9.5	49.1	92
6/20/2009 1:00	7	0.7	1.6	274	9.3	48.7	92
6/20/2009 2:00	2	0.7	1.6	249	9.3	48.7	92
6/20/2009 3:00	-2	0.5	1.1	150	9.0	48.2	93
6/20/2009 4:00	21	0.7	1.6	207	9.2	48.6	91
6/20/2009 5:00	2	0.9	2.0	291	9.0	48.2	90
6/20/2009 6:00	-5	0.5	1.1	262	9.2	48.6	91
6/20/2009 7:00	1	0.7	1.6	308	9.4	48.9	91
6/20/2009 8:00	9	0.5	1.1	304	9.4	48.9	91
6/20/2009 9:00	2	0.6	1.3	323	9.7	49.5	91
6/20/2009 10:00	5	1.2	2.7	317	10.1	50.2	86
6/20/2009 11:00	3	1.3	2.9	286	10.4	50.7	85
6/20/2009 12:00	13	0.8	1.8	320	10.7	51.3	81
6/20/2009 13:00	8	0.7	1.6	290	10.6	51.1	81
6/20/2009 14:00	5	0.8	1.8	267	10.7	51.3	78
6/20/2009 15:00	-5	0.7	1.6	242	10.2	50.4	80
6/20/2009 16:00	13	0.6	1.3	199	10.4	50.7	78
6/20/2009 17:00	-5	0.8	1.8	176	11.5	52.7	71
6/20/2009 18:00	3	0.9	2.0	150	11.8	53.2	71
6/20/2009 19:00	0	0.7	1.6	211	11.7	53.1	72
6/20/2009 20:00	7	0.6	1.3	141	11.3	52.3	75
6/20/2009 21:00	-4	1.1	2.5	152	10.8	51.4	80
6/20/2009 22:00	13	0.7	1.6	183	9.9	49.8	86
6/20/2009 23:00	-2	0.8	1.8	206	9.4	48.9	85
6/21/2009 0:00	0	0.7	1.6	226	9.3	48.7	84
6/21/2009 1:00	6	0.9	2.0	203	9.4	48.9	83
6/21/2009 2:00	5	0.8	1.8	220	9.3	48.7	84
6/21/2009 3:00	-4	0.9	2.0	210	9.4	48.9	84
6/21/2009 4:00	4	1.0	2.2	182	9.3	48.7	85
6/21/2009 5:00	8	0.8	1.8	194	9.2	48.6	85
6/21/2009 6:00	6	1.4	3.1	165	9.6	49.3	85
6/21/2009 7:00	-3	1.4	3.1	240	10.6	51.1	78
6/21/2009 8:00	2	1.5	3.4	252	12.5	54.5	68
6/21/2009 9:00	8	1.3	2.9	301	13.5	56.3	64
6/21/2009 10:00	0	1.7	3.8	1	14.0	57.2	68
6/21/2009 11:00	1	1.8	4.0	340	15.9	60.6	55
6/21/2009 12:00	8	3.1	6.9	250	17.4	63.3	44
6/21/2009 13:00	13	3.1	6.9	235	18.5	65.3	37
6/21/2009 14:00	20	3.7	8.3	11	18.9	66.0	49
6/21/2009 15:00	26	3.4	7.6	28	17.9	64.2	52
6/21/2009 16:00	12	3.4	7.6	315	14.7	58.5	64
6/21/2009 17:00	13	2.8	6.3	299	14.2	57.6	60
6/21/2009 18:00	4	1.8	4.0	283	14.1	57.4	57
6/21/2009 19:00	-2	2.3	5.1	333	12.5	54.5	71
6/21/2009 20:00	15	1.6	3.6	296	11	51.8	78
6/21/2009 21:00	0	3.1	6.9	274	10.3	50.5	76
6/21/2009 22:00	-1	3.3	7.4	278	8.7	47.7	81
6/21/2009 23:00	5	3.1	6.9	271	7.7	45.9	85
6/22/2009 0:00	-3	2.4	5.4	270	7.3	45.1	84
6/22/2009 1:00	2	2.1	4.7	272	6.9	44.4	83
6/22/2009 2:00	-1	1.9	4.3	275	6.9	44.4	83
6/22/2009 3:00	-1	1.9	4.3	277	6.6	43.9	84





Date & Time Mountain Standard Time (data for hour ending)	TSP Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/29/2009 7:00	19	1.2	2.7	171	11.0	51.8	62
6/29/2009 8:00	29	1.0	2.2	187	15.1	59.2	51
6/29/2009 9:00	33	0.9	2.0	347	18.0	64.4	43
6/29/2009 10:00	30	2.0	4.5	18	19.8	67.6	40
6/29/2009 11:00	24	2.6	5.8	24	21.0	69.8	39
6/29/2009 12:00	23	2.2	4.9	18	22.7	72.9	35
6/29/2009 13:00	37	1.9	4.3	15	23.8	74.8	34
6/29/2009 14:00	29	2.5	5.6	12	24.9	76.8	34
6/29/2009 15:00	47	2.7	6.0	17	26.5	79.7	31
6/29/2009 16:00	47	3.0	6.7	7	26.2	79.2	30
6/29/2009 17:00	79	2.6	5.8	29	24.7	76.5	39
6/29/2009 18:00	70	3.4	7.6	25	26.6	79.9	31
6/29/2009 19:00	37	3.0	6.7	42	26.2	79.2	28
6/29/2009 20:00	29	2.8	6.3	30	24.5	76.1	31
6/29/2009 21:00	28	1.6	3.6	52	21.1	70.0	38
6/29/2009 22:00	42	1.3	2.9	269	17.7	63.9	47
6/29/2009 23:00	43	1.5	3.4	250	14.6	58.3	57
6/30/2009 0:00	32	0.9	2.0	224	10.8	51.4	73
6/30/2009 1:00	20	1.0	2.2	236	10.3	50.5	69
6/30/2009 2:00	21	0.7	1.6	231	7.9	46.2	79
6/30/2009 3:00	9	1.0	2.2	233	7.2	45.0	76
6/30/2009 4:00	4	0.9	2.0	239	5.8	42.4	80
6/30/2009 5:00	17	0.7	1.6	231	5.4	41.7	81
6/30/2009 6:00	40	1.1	2.5	195	7.0	44.6	74
6/30/2009 7:00	33	1.2	2.7	221	10.7	51.3	63
6/30/2009 8:00	27	0.7	1.6	225	14.1	57.4	54
6/30/2009 9:00	19	0.9	2.0	10	17.7	63.9	39
6/30/2009 10:00	41	1.5	3.4	26	20.0	68.0	33
6/30/2009 11:00	26	2.4	5.4	17	21.4	70.5	30
6/30/2009 12:00	25	2.5	5.6	9	22.8	73.0	30
6/30/2009 13:00	26	2.7	6.0	11	24.1	75.4	29
6/30/2009 14:00	40	2.7	6.0	21	24.8	76.6	30
6/30/2009 15:00	49	3.8	8.5	21	26.5	79.7	27
6/30/2009 16:00	39	4.5	10.1	19	26.9	80.4	27
6/30/2009 17:00	48	5.0	11.2	17	26.6	79.9	26
6/30/2009 18:00	59	5.3	11.9	22	25.9	78.6	24
6/30/2009 19:00	33	4.5	10.1	24	24.6	76.3	25
6/30/2009 20:00	34	3.4	7.6	33	22.7	72.9	27
6/30/2009 21:00	19	3.5	7.8	28	21.4	70.5	24
6/30/2009 22:00	36	1.5	3.4	295	17.5	63.5	37
6/30/2009 23:00	35	1.7	3.8	250	15.7	60.3	45
7/1/2009 0:00	33	1.0	2.2	181	13.1	55.6	56

BA = Routine maintenance / repairs

**Table 6**  
**Warm Springs Site Hourly Average Data**  
**Met One E-BAM**  
**June 2009**

Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/1/2009 1:00	7	0.7	1.6	205	10.0	50.0	60
6/1/2009 2:00	-5	0.9	2.0	188	8.0	46.4	68
6/1/2009 3:00	6	1.4	3.1	180	9.1	48.4	57
6/1/2009 4:00	-5	1.5	3.4	259	8.2	46.8	62
6/1/2009 5:00	31	2.1	4.7	357	9.1	48.4	67
6/1/2009 6:00	9	2.9	6.5	348	8.9	48.0	65
6/1/2009 7:00	11	3.3	7.4	347	9.4	48.9	59
6/1/2009 8:00	14	3.4	7.6	347	10.2	50.4	54
6/1/2009 9:00	10	3.5	7.8	346	10.3	50.5	53
6/1/2009 10:00	11	3.9	8.7	339	10.8	51.4	54
6/1/2009 11:00	16	4.7	10.5	332	12.1	53.8	53
6/1/2009 12:00	7	4.2	9.4	338	11.2	52.2	55
6/1/2009 13:00	BA	3.9	8.7	324	11.5	52.7	55
6/1/2009 14:00	3	2.9	6.5	335	11.1	52.0	57
6/1/2009 15:00	1	3.3	7.4	332	11.3	52.3	57
6/1/2009 16:00	14	3.2	7.2	335	11.4	52.5	57
6/1/2009 17:00	6	3.2	7.2	336	11.1	52.0	58
6/1/2009 18:00	2	2.9	6.5	338	10.0	50.0	62
6/1/2009 19:00	11	2.7	6.0	340	9.5	49.1	63
6/1/2009 20:00	2	1.3	2.9	2	9.4	48.9	63
6/1/2009 21:00	11	1.1	2.5	31	9.2	48.6	63
6/1/2009 22:00	9	1.6	3.6	337	8.3	46.9	66
6/1/2009 23:00	6	1.1	2.5	3	8.4	47.1	65
6/2/2009 0:00	3	1.8	4.0	345	7.9	46.2	68
6/2/2009 1:00	8	2	4.5	347	7.6	45.7	69
6/2/2009 2:00	12	1.8	4.0	345	7.4	45.3	70
6/2/2009 3:00	5	1.8	4.0	346	7.4	45.3	71
6/2/2009 4:00	12	1.9	4.3	336	7.3	45.1	71
6/2/2009 5:00	3	1.8	4.0	339	7.3	45.1	71
6/2/2009 6:00	9	2.0	4.5	338	7.4	45.3	70
6/2/2009 7:00	6	1.9	4.3	341	7.5	45.5	70
6/2/2009 8:00	1	1.9	4.3	335	7.9	46.2	68
6/2/2009 9:00	7	1.8	4.0	341	8.8	47.8	64
6/2/2009 10:00	9	1.6	3.6	337	9.7	49.5	61
6/2/2009 11:00	4	1.7	3.8	331	10.4	50.7	58
6/2/2009 12:00	4	1.5	3.4	48	11.0	51.8	56
6/2/2009 13:00	6	2.1	4.7	154	11.1	52.0	57
6/2/2009 14:00	7	1.9	4.3	188	11.7	53.1	55
6/2/2009 15:00	-1	1.3	2.9	235	11.8	53.2	55
6/2/2009 16:00	6	1.5	3.4	262	11.8	53.2	57
6/2/2009 17:00	3	1.7	3.8	255	11.9	53.4	58
6/2/2009 18:00	-5	1.8	4.0	204	11.6	52.9	60
6/2/2009 19:00	6	1.8	4.0	187	10.9	51.6	63
6/2/2009 20:00	5	1.3	2.9	187	10.5	50.9	65
6/2/2009 21:00	-1	1.3	2.9	176	10.0	50.0	67
6/2/2009 22:00	3	1.4	3.1	196	9.6	49.3	70
6/2/2009 23:00	7	0.9	2.0	220	9.0	48.2	72
6/3/2009 0:00	3	0.6	1.3	240	8.8	47.8	74
6/3/2009 1:00	12	0.5	1.1	262	7.8	46.0	79
6/3/2009 2:00	6	0.7	1.6	250	7.5	45.5	79
6/3/2009 3:00	1	0.8	1.8	216	7.8	46.0	78
6/3/2009 4:00	-1	0.9	2.0	217	7.0	44.6	81
6/3/2009 5:00	6	0.6	1.3	243	5.6	42.1	85
6/3/2009 6:00	-5	0.7	1.6	300	4.5	40.1	87
6/3/2009 7:00	12	0.5	1.1	360	8.0	46.4	73
6/3/2009 8:00	4	0.7	1.6	346	10.1	50.2	66
6/3/2009 9:00	11	1.0	2.2	260	11.8	53.2	59
6/3/2009 10:00	11	1.3	2.9	175	12.8	55.0	54
6/3/2009 11:00	-1	1.7	3.8	235	14.2	57.6	50
6/3/2009 12:00	4	1.8	4.0	224	16.1	61.0	46
6/3/2009 13:00	6	1.8	4.0	211	18.2	64.8	42
6/3/2009 14:00	-4	1.7	3.8	204	19.2	66.6	40
6/3/2009 15:00	4	1.8	4.0	247	19.7	67.5	40
6/3/2009 16:00	-3	1.4	3.1	357	21.0	69.8	36
6/3/2009 17:00	3	1.1	2.5	58	21.7	71.1	33
6/3/2009 18:00	-4	1.6	3.6	3	21.3	70.3	36
6/3/2009 19:00	0	2.0	4.5	348	20.3	68.5	38
6/3/2009 20:00	6	2.2	4.9	338	18.4	65.1	44
6/3/2009 21:00	-5	1.5	3.4	223	15.2	59.4	52
6/3/2009 22:00	-4	1.3	2.9	231	13.4	56.1	61
6/3/2009 23:00	7	1.1	2.5	138	11.8	53.2	67
6/4/2009 0:00	-2	0.7	1.6	137	9.5	49.1	76
6/4/2009 1:00	-3	1.3	2.9	166	8.1	46.6	81
6/4/2009 2:00	-5	1.2	2.7	173	7.5	45.5	82
6/4/2009 3:00	13	1.2	2.7	178	7.1	44.8	82
6/4/2009 4:00	-3	1.2	2.7	184	6.8	44.2	83
6/4/2009 5:00	-5	1.6	3.6	196	6.3	43.3	83
6/4/2009 6:00	9	1.6	3.6	189	6.7	44.1	81
6/4/2009 7:00	15	2.0	4.5	188	10.0	50.0	68
6/4/2009 8:00	14	2.0	4.5	187	13.7	56.7	57

Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/4/2009 9:00	22	1.6	3.6	203	15.2	59.4	54
6/4/2009 10:00	9	1.2	2.7	194	16.7	62.1	51
6/4/2009 11:00	12	1.2	2.7	44	19.4	66.9	43
6/4/2009 12:00	14	1.5	3.4	328	19.2	66.6	46
6/4/2009 13:00	3	1.6	3.6	359	19.2	66.6	49
6/4/2009 14:00	8	2.3	5.1	344	18.6	65.5	50
6/4/2009 15:00	-2	1.5	3.4	317	16.9	62.4	58
6/4/2009 16:00	-5	1.0	2.2	176	15.1	59.2	77
6/4/2009 17:00	19	2.0	4.5	173	14.9	58.8	77
6/4/2009 18:00	22	1.9	4.3	191	15.5	59.9	69
6/4/2009 19:00	3	1.4	3.1	212	15.2	59.4	72
6/4/2009 20:00	3	0.8	1.8	177	14.6	58.3	72
6/4/2009 21:00	-5	1.0	2.2	206	12.9	55.2	77
6/4/2009 22:00	12	1.6	3.6	204	12.8	55.0	77
6/4/2009 23:00	12	1.1	2.5	228	11.8	53.2	81
6/5/2009 0:00	5	0.6	1.3	230	11.7	53.1	81
6/5/2009 1:00	4	1.4	3.1	145	12.5	54.5	75
6/5/2009 2:00	-1	0.9	2.0	320	12.1	53.8	76
6/5/2009 3:00	-1	0.9	2.0	198	11.3	52.3	80
6/5/2009 4:00	2	0.8	1.8	298	10.3	50.5	86
6/5/2009 5:00	0	1.6	3.6	236	9.8	49.6	87
6/5/2009 6:00	1	0.7	1.6	187	9.9	49.8	86
6/5/2009 7:00	9	1.1	2.5	205	11.6	52.9	78
6/5/2009 8:00	-2	1.3	2.9	204	14.1	57.4	64
6/5/2009 9:00	10	1.4	3.1	239	16.0	60.8	56
6/5/2009 10:00	-1	1.7	3.8	231	17.4	63.3	52
6/5/2009 11:00	BA	1.6	3.6	312	18.9	66.0	47
6/5/2009 12:00	35	1.6	3.6	74	20.2	68.4	45
6/5/2009 13:00	-4	1.6	3.6	21	21.4	70.5	43
6/5/2009 14:00	18	2.2	4.9	345	21.2	70.2	44
6/5/2009 15:00	7	2.5	5.6	48	16.0	60.8	64
6/5/2009 16:00	-5	2.2	4.9	342	13.5	56.3	78
6/5/2009 17:00	21	0.7	1.6	91	12.1	53.8	86
6/5/2009 18:00	44	0.7	1.6	115	12.0	53.6	86
6/5/2009 19:00	5	1.0	2.2	250	11.6	52.9	89
6/5/2009 20:00	48	0.9	2.0	288	11.8	53.2	86
6/5/2009 21:00	-5	0.4	0.9	200	10.9	51.6	88
6/5/2009 22:00	-5	0.5	1.1	85	10.7	51.3	87
6/5/2009 23:00	7	0.7	1.6	218	10.7	51.3	86
6/6/2009 0:00	13	0.9	2.0	153	10.8	51.4	87
6/6/2009 1:00	-5	0.9	2.0	66	10.0	50.0	82
6/6/2009 2:00	12	1.0	2.2	5	8.8	47.8	88
6/6/2009 3:00	11	1.7	3.8	353	7.6	45.7	88
6/6/2009 4:00	-3	1.5	3.4	16	5.8	42.4	85
6/6/2009 5:00	-2	1	2.2	30	5.4	41.7	83
6/6/2009 6:00	16	1.0	2.2	19	5.2	41.4	83
6/6/2009 7:00	4	0.8	1.8	358	5.9	42.6	79
6/6/2009 8:00	46	1.2	2.7	10	6.5	43.7	78
6/6/2009 9:00	1	1.5	3.4	12	5.5	41.9	81
6/6/2009 10:00	0	3.4	7.6	350	4.4	39.9	80
6/6/2009 11:00	-2	4.1	9.2	350	1.8	35.2	87
6/6/2009 12:00	3	2.5	5.6	351	2.6	36.7	86
6/6/2009 13:00	8	3.2	7.2	349	4.7	40.5	77
6/6/2009 14:00	0	3.4	7.6	349	5.9	42.6	69
6/6/2009 15:00	-1	3.7	8.3	347	6.2	43.2	67
6/6/2009 16:00	3	2.9	6.5	350	7.0	44.6	64
6/6/2009 17:00	2	2.7	6.0	353	5.9	42.6	65
6/6/2009 18:00	3	2.3	5.1	350	5.7	42.3	65
6/6/2009 19:00	5	2.2	4.9	348	5.4	41.7	68
6/6/2009 20:00	4	1.6	3.6	348	4.7	40.5	72
6/6/2009 21:00	-5	1.9	4.3	346	3.9	39.0	74
6/6/2009 22:00	7	1.9	4.3	339	3.4	38.1	75
6/6/2009 23:00	-2	2.5	5.6	337	3.1	37.6	76
6/7/2009 0:00	10	1.6	3.6	343	3.2	37.8	73
6/7/2009 1:00	7	2.8	6.3	334	2.8	37.0	73
6/7/2009 2:00	-4	2.8	6.3	339	2.5	36.5	75
6/7/2009 3:00	11	2.4	5.4	345	2.3	36.1	74
6/7/2009 4:00	-1	2.2	4.9	346	2.0	35.6	73
6/7/2009 5:00	8	1.8	4.0	349	1.8	35.2	73
6/7/2009 6:00	-5	1.7	3.8	348	1.9	35.4	73
6/7/2009 7:00	0	1.5	3.4	350	2.3	36.1	72
6/7/2009 8:00	2	2.2	4.9	346	3.1	37.6	70
6/7/2009 9:00	5	2.2	4.9	349	3.7	38.7	69
6/7/2009 10:00	-5	2.0	4.5	352	5.3	41.5	63
6/7/2009 11:00	3	1.7	3.8	335	6.8	44.2	55
6/7/2009 12:00	9	1.5	3.4	323	7.7	45.9	52
6/7/2009 13:00	-3	1.4	3.1	340	8.3	46.9	50
6/7/2009 14:00	3	1.8	4.0	358	9.9	49.8	47
6/7/2009 15:00	-1	3.2	7.2	341	10.4	50.7	50
6/7/2009 16:00	6	2.6	5.8	335	10.7	51.3	46
6/7/2009 17:00	-5	1.7	3.8	353	10.0	50.0	42
6/7/2009 18:00	-2	1.8	4.0	317	10.0	50.0	44
6/7/2009 19:00	-2	1.9	4.3	328	9.0	48.2	47
6/7/2009 20:00	-5	0.7	1.6	275	7.2	45.0	62
6/7/2009 21:00	-3	0.6	1.3	141	5.5	41.9	75
6/7/2009 22:00	-4	0.9	2.0	157	5.4	41.7	72

Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/7/2009 23:00	10	0.6	1.3	260	3.2	37.8	82
6/8/2009 0:00	16	0.5	1.1	249	2.3	36.1	87
6/8/2009 1:00	-5	0.6	1.3	316	3.0	37.4	82
6/8/2009 2:00	24	0.6	1.3	245	1.8	35.2	87
6/8/2009 3:00	-5	0.6	1.3	221	1.2	34.2	88
6/8/2009 4:00	8	0.7	1.6	163	0.5	32.9	89
6/8/2009 5:00	-2	0.7	1.6	284	0.2	32.4	89
6/8/2009 6:00	11	0.6	1.3	295	1.1	34.0	88
6/8/2009 7:00	17	0.6	1.3	339	3.4	38.1	85
6/8/2009 8:00	-5	0.8	1.8	7	5.1	41.2	77
6/8/2009 9:00	19	1.3	2.9	9	4.7	40.5	81
6/8/2009 10:00	11	1.4	3.1	14	5.2	41.4	81
6/8/2009 11:00	-5	2.0	4.5	358	6.5	43.7	75
6/8/2009 12:00	17	2.3	5.1	359	8.1	46.6	70
6/8/2009 13:00	5	2.1	4.7	11	9.4	48.9	65
6/8/2009 14:00	1	1.8	4.0	21	9.7	49.5	63
6/8/2009 15:00	-5	2.1	4.7	359	10.8	51.4	57
6/8/2009 16:00	10	1.7	3.8	353	11.1	52.0	55
6/8/2009 17:00	5	1.9	4.3	349	11.3	52.3	54
6/8/2009 18:00	-5	3.0	6.7	338	9.6	49.3	64
6/8/2009 19:00	0	2.4	5.4	352	7.3	45.1	77
6/8/2009 20:00	-5	2.7	6.0	351	5.1	41.2	83
6/8/2009 21:00	5	1.5	3.4	358	4.1	39.4	88
6/8/2009 22:00	3	1.1	2.5	2	3.6	38.5	88
6/8/2009 23:00	-3	0.8	1.8	14	3.3	37.9	88
6/9/2009 0:00	4	0.7	1.6	15	3.3	37.9	88
6/9/2009 1:00	0	0.5	1.1	355	3.2	37.8	89
6/9/2009 2:00	-4	0.6	1.3	24	3.2	37.8	88
6/9/2009 3:00	19	0.7	1.6	332	3.1	37.6	89
6/9/2009 4:00	-5	0.5	1.1	339	2.1	35.8	90
6/9/2009 5:00	-5	0.6	1.3	237	1.9	35.4	91
6/9/2009 6:00	20	0.6	1.3	277	2.9	37.2	90
6/9/2009 7:00	-5	0.7	1.6	274	4.0	39.2	83
6/9/2009 8:00	8	1	2.2	164	6.3	43.3	72
6/9/2009 9:00	-1	1.4	3.1	178	6.9	44.4	69
6/9/2009 10:00	2	1.7	3.8	139	8.7	47.7	61
6/9/2009 11:00	15	1.4	3.1	122	10.3	50.5	53
6/9/2009 12:00	9	1.6	3.6	4	11.9	53.4	48
6/9/2009 13:00	3	1.6	3.6	22	13.1	55.6	46
6/9/2009 14:00	2	2.1	4.7	353	14.0	57.2	45
6/9/2009 15:00	38	1.8	4.0	25	15.0	59.0	41
6/9/2009 16:00	7	1.9	4.3	8	15.6	60.1	39
6/9/2009 17:00	-2	2.1	4.7	0	15.6	60.1	39
6/9/2009 18:00	0	1.9	4.3	359	15.4	59.7	39
6/9/2009 19:00	2	1.9	4.3	352	14.6	58.3	41
6/9/2009 20:00	-5	1.4	3.1	333	11.4	52.5	57
6/9/2009 21:00	-5	1.0	2.2	336	9.0	48.2	67
6/9/2009 22:00	-4	1.0	2.2	333	8.0	46.4	68
6/9/2009 23:00	3	0.7	1.6	225	5.4	41.7	80
6/10/2009 0:00	10	0.7	1.6	127	5.0	41.0	83
6/10/2009 1:00	-5	0.5	1.1	191	5.2	41.4	83
6/10/2009 2:00	13	0.5	1.1	295	4.7	40.5	87
6/10/2009 3:00	-3	0.5	1.1	350	3.4	38.1	90
6/10/2009 4:00	6	0.7	1.6	287	1.6	34.9	90
6/10/2009 5:00	0	0.9	2.0	150	0.9	33.6	91
6/10/2009 6:00	10	0.7	1.6	163	2.7	36.9	85
6/10/2009 7:00	4	1.1	2.5	180	6.2	43.2	69
6/10/2009 8:00	11	1.2	2.7	24	9.0	48.2	60
6/10/2009 9:00	17	1.3	2.9	2	10.6	51.1	57
6/10/2009 10:00	8	1.6	3.6	353	12.3	54.1	52
6/10/2009 11:00	8	1.5	3.4	7	13.9	57.0	49
6/10/2009 12:00	8	1.5	3.4	30	15.9	60.6	41
6/10/2009 13:00	1	1.9	4.3	355	16.7	62.1	34
6/10/2009 14:00	8	2.0	4.5	9	17.8	64.0	35
6/10/2009 15:00	8	2.0	4.5	0	18.4	65.1	33
6/10/2009 16:00	-1	2.2	4.9	354	18.4	65.1	31
6/10/2009 17:00	5	2.0	4.5	5	18.8	65.8	28
6/10/2009 18:00	-5	2.2	4.9	345	17.6	63.7	29
6/10/2009 19:00	2	1.7	3.8	354	16.9	62.4	34
6/10/2009 20:00	2	1.4	3.1	130	15.6	60.1	44
6/10/2009 21:00	-5	1.3	2.9	272	13.6	56.5	49
6/10/2009 22:00	-2	1.4	3.1	335	12.5	54.5	53
6/10/2009 23:00	3	0.7	1.6	12	9.8	49.6	63
6/11/2009 0:00	-5	0.7	1.6	358	7.9	46.2	71
6/11/2009 1:00	9	0.5	1.1	207	4.9	40.8	83
6/11/2009 2:00	15	0.5	1.1	255	4.0	39.2	85
6/11/2009 3:00	-5	0.7	1.6	165	3.2	37.8	89
6/11/2009 4:00	10	1.1	2.5	174	4.3	39.7	82
6/11/2009 5:00	6	1.0	2.2	162	4.0	39.2	85
6/11/2009 6:00	4	0.6	1.3	131	4.6	40.3	84
6/11/2009 7:00	13	1.0	2.2	209	8.7	47.7	65
6/11/2009 8:00	22	1.1	2.5	207	11.7	53.1	51
6/11/2009 9:00	20	1.1	2.5	349	13.5	56.3	47
6/11/2009 10:00	9	1.2	2.7	7	15.1	59.2	45
6/11/2009 11:00	1	1.8	4.0	350	16.6	61.9	39

Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/11/2009 12:00	10	1.7	3.8	1	18.2	64.8	33
6/11/2009 13:00	3	2.1	4.7	352	19.1	66.4	30
6/11/2009 14:00	9	2.2	4.9	343	19.7	67.5	26
6/11/2009 15:00	-4	1.8	4.0	346	20.3	68.5	20
6/11/2009 16:00	10	1.9	4.3	356	20.7	69.3	19
6/11/2009 17:00	-1	2.2	4.9	353	20.5	68.9	24
6/11/2009 18:00	-5	2.0	4.5	351	19.3	66.7	25
6/11/2009 19:00	10	1.8	4.0	351	19.2	66.6	28
6/11/2009 20:00	5	1.1	2.5	350	17.2	63.0	37
6/11/2009 21:00	-5	0.9	2.0	329	12.7	54.9	55
6/11/2009 22:00	-3	0.8	1.8	322	9.5	49.1	64
6/11/2009 23:00	-5	0.7	1.6	149	7.9	46.2	73
6/12/2009 0:00	5	1.1	2.5	153	6.8	44.2	77
6/12/2009 1:00	17	1.2	2.7	152	6.4	43.5	75
6/12/2009 2:00	-5	1.3	2.9	176	6.2	43.2	73
6/12/2009 3:00	16	1.4	3.1	185	5.5	41.9	76
6/12/2009 4:00	-2	1.4	3.1	165	4.8	40.6	78
6/12/2009 5:00	10	1.5	3.4	160	4.4	39.9	80
6/12/2009 6:00	16	1.8	4.0	169	5.2	41.4	75
6/12/2009 7:00	3	2.0	4.5	177	8.8	47.8	61
6/12/2009 8:00	21	2.1	4.7	193	12.3	54.1	50
6/12/2009 9:00	29	1.2	2.7	123	15.1	59.2	45
6/12/2009 10:00	15	0.9	2.0	73	17.8	64.0	39
6/12/2009 11:00	13	1.3	2.9	30	19.6	67.3	31
6/12/2009 12:00	BA	1.5	3.4	358	20.5	68.9	24
6/12/2009 13:00	12	1.6	3.6	330	21.3	70.3	23
6/12/2009 14:00	14	1.5	3.4	338	21.9	71.4	23
6/12/2009 15:00	7	1.7	3.8	79	22.5	72.5	23
6/12/2009 16:00	8	2.1	4.7	79	22.8	73.0	24
6/12/2009 17:00	-1	1.4	3.1	48	21.5	70.7	25
6/12/2009 18:00	18	1.6	3.6	37	22.2	72.0	25
6/12/2009 19:00	6	2.0	4.5	129	19.1	66.4	36
6/12/2009 20:00	-3	3.5	7.8	169	17.4	63.3	40
6/12/2009 21:00	-5	3.5	7.8	183	16.0	60.8	45
6/12/2009 22:00	4	2.2	4.9	172	14.3	57.7	52
6/12/2009 23:00	2	1.4	3.1	159	12.1	53.8	62
6/13/2009 0:00	-1	1.5	3.4	198	10.0	50.0	69
6/13/2009 1:00	2	1.3	2.9	208	9.4	48.9	69
6/13/2009 2:00	6	1.3	2.9	204	8.4	47.1	72
6/13/2009 3:00	6	1.4	3.1	153	8.3	46.9	73
6/13/2009 4:00	0	1.1	2.5	159	7.6	45.7	76
6/13/2009 5:00	1	1.7	3.8	203	7.9	46.2	73
6/13/2009 6:00	15	1.6	3.6	184	8.4	47.1	71
6/13/2009 7:00	1	2.2	4.9	191	11.2	52.2	60
6/13/2009 8:00	15	2.3	5.1	205	14.2	57.6	52
6/13/2009 9:00	17	1.4	3.1	154	17.8	64.0	43
6/13/2009 10:00	7	1.7	3.8	198	18.9	66.0	38
6/13/2009 11:00	13	1.8	4.0	233	20.4	68.7	33
6/13/2009 12:00	9	1.4	3.1	311	21.6	70.9	29
6/13/2009 13:00	-4	1.5	3.4	211	22.5	72.5	26
6/13/2009 14:00	8	1.7	3.8	212	22.6	72.7	28
6/13/2009 15:00	2	1.4	3.1	171	22.9	73.2	28
6/13/2009 16:00	9	1.4	3.1	68	23.1	73.6	28
6/13/2009 17:00	-5	1.5	3.4	2	17.1	62.8	59
6/13/2009 18:00	26	2.0	4.5	313	18.3	64.9	57
6/13/2009 19:00	10	2.3	5.1	267	17.8	64.0	54
6/13/2009 20:00	-2	2.6	5.8	187	16.4	61.5	55
6/13/2009 21:00	11	1.7	3.8	163	14.9	58.8	61
6/13/2009 22:00	2	1.5	3.4	171	13.8	56.8	67
6/13/2009 23:00	7	1.2	2.7	180	11.5	52.7	74
6/14/2009 0:00	-5	1.5	3.4	200	10.7	51.3	77
6/14/2009 1:00	4	2.0	4.5	204	10.0	50.0	79
6/14/2009 2:00	7	1.6	3.6	217	10.2	50.4	77
6/14/2009 3:00	1	2.3	5.1	205	10.8	51.4	76
6/14/2009 4:00	7	1.8	4.0	211	10.7	51.3	75
6/14/2009 5:00	3	0.9	2.0	195	10.5	50.9	77
6/14/2009 6:00	10	1.6	3.6	247	10.2	50.4	78
6/14/2009 7:00	-1	1.6	3.6	191	13.0	55.4	66
6/14/2009 8:00	7	2.1	4.7	205	14.6	58.3	62
6/14/2009 9:00	7	1.7	3.8	195	16.6	61.9	53
6/14/2009 10:00	9	1.8	4.0	155	18.4	65.1	47
6/14/2009 11:00	1	1.7	3.8	172	20.4	68.7	41
6/14/2009 12:00	6	2.0	4.5	133	19.1	66.4	46
6/14/2009 13:00	-5	2.1	4.7	43	14.6	58.3	69
6/14/2009 14:00	9	2.1	4.7	248	15.2	59.4	71
6/14/2009 15:00	8	1.4	3.1	207	17.2	63.0	61
6/14/2009 16:00	0	2.0	4.5	110	18.0	64.4	56
6/14/2009 17:00	12	1.4	3.1	104	18.5	65.3	51
6/14/2009 18:00	13	0.7	1.6	121	18.8	65.8	49
6/14/2009 19:00	-5	2.7	6.0	224	16.6	61.9	55
6/14/2009 20:00	-2	2.2	4.9	180	14.1	57.4	69
6/14/2009 21:00	-5	1.1	2.5	345	12.3	54.1	83
6/14/2009 22:00	10	0.6	1.3	94	11.4	52.5	89
6/14/2009 23:00	-3	1.2	2.7	170	11.2	52.2	89
6/15/2009 0:00	-5	1.3	2.9	161	10.4	50.7	88



Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/18/2009 15:00	16	1.3	2.9	8	17.2	63.0	46
6/18/2009 16:00	6	1.5	3.4	1	18.3	64.9	46
6/18/2009 17:00	3	1.3	2.9	11	18.7	65.7	44
6/18/2009 18:00	-5	1.1	2.5	33	18.8	65.8	42
6/18/2009 19:00	11	1.1	2.5	28	18.8	65.8	41
6/18/2009 20:00	2	0.5	1.1	25	17.0	62.6	49
6/18/2009 21:00	-5	0.6	1.3	95	13.3	55.9	64
6/18/2009 22:00	-2	0.6	1.3	240	8.4	47.1	84
6/18/2009 23:00	4	1.1	2.5	156	8.9	48.0	83
6/19/2009 0:00	8	1.1	2.5	164	8.4	47.1	80
6/19/2009 1:00	-5	1.5	3.4	179	8.0	46.4	83
6/19/2009 2:00	7	1.3	2.9	180	7.5	45.5	84
6/19/2009 3:00	8	1.7	3.8	178	7.4	45.3	84
6/19/2009 4:00	14	1.8	4.0	198	8.2	46.8	80
6/19/2009 5:00	-4	1.8	4.0	206	7.8	46.0	80
6/19/2009 6:00	10	2.6	5.8	199	8.9	48.0	74
6/19/2009 7:00	13	1.9	4.3	183	10.6	51.1	70
6/19/2009 8:00	3	2.1	4.7	194	13.6	56.5	60
6/19/2009 9:00	15	2.0	4.5	210	17.1	62.8	46
6/19/2009 10:00	11	3.1	6.9	178	19.0	66.2	39
6/19/2009 11:00	20	3.3	7.4	181	20.3	68.5	34
6/19/2009 12:00	5	3.8	8.5	207	20.4	68.7	32
6/19/2009 13:00	7	4.2	9.4	220	21.0	69.8	31
6/19/2009 14:00	2	3.6	8.1	225	20.9	69.6	31
6/19/2009 15:00	9	2.3	5.1	324	19.4	66.9	43
6/19/2009 16:00	19	2.1	4.7	3	19.3	66.7	48
6/19/2009 17:00	6	2.3	5.1	359	18.5	65.3	51
6/19/2009 18:00	-4	1.2	2.7	21	15.9	60.6	67
6/19/2009 19:00	6	1.8	4.0	48	14.0	57.2	77
6/19/2009 20:00	3	1.8	4.0	48	12.4	54.3	81
6/19/2009 21:00	5	1.4	3.1	38	11.6	52.9	83
6/19/2009 22:00	7	0.8	1.8	1	11.0	51.8	85
6/19/2009 23:00	5	1.1	2.5	357	10.4	50.7	90
6/20/2009 0:00	9	0.9	2.0	257	10.1	50.2	92
6/20/2009 1:00	-1	0.7	1.6	235	9.7	49.5	92
6/20/2009 2:00	15	0.4	0.9	26	9.5	49.1	92
6/20/2009 3:00	-5	0.6	1.3	106	9.4	48.9	92
6/20/2009 4:00	2	0.8	1.8	195	10.0	50.0	89
6/20/2009 5:00	12	1.0	2.2	345	9.7	49.5	91
6/20/2009 6:00	-1	0.8	1.8	343	9.9	49.8	91
6/20/2009 7:00	1	1.2	2.7	335	9.9	49.8	91
6/20/2009 8:00	6	0.9	2.0	322	10.1	50.2	91
6/20/2009 9:00	2	1.1	2.5	343	10.4	50.7	89
6/20/2009 10:00	9	1.1	2.5	340	11.0	51.8	85
6/20/2009 11:00	4	1.2	2.7	311	11.3	52.3	82
6/20/2009 12:00	3	0.9	2.0	345	11.7	53.1	80
6/20/2009 13:00	2	0.6	1.3	351	11.5	52.7	79
6/20/2009 14:00	2	0.9	2.0	297	11.5	52.7	73
6/20/2009 15:00	-2	0.8	1.8	211	11.0	51.8	76
6/20/2009 16:00	1	0.8	1.8	214	11.1	52.0	77
6/20/2009 17:00	17	0.9	2.0	197	12.1	53.8	72
6/20/2009 18:00	4	0.7	1.6	182	12.5	54.5	70
6/20/2009 19:00	-5	1.1	2.5	239	12.5	54.5	72
6/20/2009 20:00	2	1.0	2.2	176	11.9	53.4	74
6/20/2009 21:00	4	0.9	2.0	115	11.5	52.7	78
6/20/2009 22:00	-5	0.6	1.3	247	10.0	50.0	85
6/20/2009 23:00	10	0.8	1.8	157	9.3	48.7	89
6/21/2009 0:00	4	0.8	1.8	215	9.9	49.8	86
6/21/2009 1:00	-5	0.9	2.0	186	9.9	49.8	85
6/21/2009 2:00	10	1.1	2.5	197	10.0	50.0	85
6/21/2009 3:00	3	0.8	1.8	146	10.0	50.0	85
6/21/2009 4:00	-4	0.7	1.6	162	9.9	49.8	86
6/21/2009 5:00	5	0.5	1.1	258	9.4	48.9	89
6/21/2009 6:00	-4	0.7	1.6	327	9.7	49.5	88
6/21/2009 7:00	19	0.4	0.9	62	10.4	50.7	86
6/21/2009 8:00	-5	0.6	1.3	127	12.1	53.8	76
6/21/2009 9:00	6	1.1	2.5	343	13.1	55.6	72
6/21/2009 10:00	6	1.3	2.9	347	14.3	57.7	68
6/21/2009 11:00	4	1.2	2.7	336	16.2	61.2	59
6/21/2009 12:00	3	1.4	3.1	12	17.4	63.3	54
6/21/2009 13:00	5	1.8	4.0	347	18.6	65.5	51
6/21/2009 14:00	2	2.2	4.9	357	19.0	66.2	52
6/21/2009 15:00	5	2.1	4.7	2	19.3	66.7	49
6/21/2009 16:00	7	2.2	4.9	331	17.2	63.0	56
6/21/2009 17:00	-5	1.7	3.8	352	14.0	57.2	74
6/21/2009 18:00	8	1.3	2.9	80	14.0	57.2	73
6/21/2009 19:00	-5	2.3	5.1	350	12.5	54.5	75
6/21/2009 20:00	6	2.5	5.6	328	11.5	52.7	79
6/21/2009 21:00	17	1.7	3.8	259	11.1	52.0	77
6/21/2009 22:00	-5	2.7	6.0	242	9.6	49.3	82
6/21/2009 23:00	3	2.0	4.5	240	8.4	47.1	87
6/22/2009 0:00	-4	2.7	6.0	219	7.8	46.0	85
6/22/2009 1:00	-1	1.7	3.8	222	7.5	45.5	85
6/22/2009 2:00	6	1.9	4.3	243	7.4	45.3	82
6/22/2009 3:00	-2	1.3	2.9	249	7.1	44.8	88



Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m3)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/25/2009 18:00	17	1.6	3.6	25	21.2	70.2	39
6/25/2009 19:00	10	1.5	3.4	57	21.8	71.2	33
6/25/2009 20:00	15	1.5	3.4	49	21.1	70.0	32
6/25/2009 21:00	1	1.3	2.9	51	18.2	64.8	36
6/25/2009 22:00	7	0.8	1.8	63	15.9	60.6	37
6/25/2009 23:00	7	0.9	2.0	321	12.6	54.7	43
6/26/2009 0:00	-5	0.6	1.3	287	8.3	46.9	AM
6/26/2009 1:00	21	1.0	2.2	269	5.8	42.4	AM
6/26/2009 2:00	-5	0.7	1.6	152	5.8	42.4	AM
6/26/2009 3:00	24	1.2	2.7	156	6.8	44.2	AM
6/26/2009 4:00	5	1.1	2.5	146	5.7	42.3	AM
6/26/2009 5:00	2	0.9	2.0	164	4.4	39.9	AM
6/26/2009 6:00	24	1.0	2.2	178	4.9	40.8	AM
6/26/2009 7:00	4	1.2	2.7	169	8.3	46.9	AM
6/26/2009 8:00	27	1.0	2.2	211	13.0	55.4	38
6/26/2009 9:00	18	1.2	2.7	329	15.1	59.2	43
6/26/2009 10:00	12	1.7	3.8	0	16.6	61.9	43
6/26/2009 11:00	10	1.8	4.0	352	17.8	64.0	40
6/26/2009 12:00	15	1.9	4.3	350	18.4	65.1	41
6/26/2009 13:00	3	1.8	4.0	351	19.2	66.6	42
6/26/2009 14:00	7	1.9	4.3	359	20.2	68.4	39
6/26/2009 15:00	8	1.6	3.6	20	21.6	70.9	36
6/26/2009 16:00	11	2.2	4.9	13	22.4	72.3	31
6/26/2009 17:00	3	4.7	10.5	279	21.9	71.4	22
6/26/2009 18:00	6	3.7	8.3	296	20.9	69.6	26
6/26/2009 19:00	0	3.6	8.1	312	19.2	66.6	31
6/26/2009 20:00	1	3.5	7.8	309	16.9	62.4	36
6/26/2009 21:00	-5	1.8	4.0	311	12.2	54.0	39
6/26/2009 22:00	-5	1.6	3.6	302	10.3	50.5	47
6/26/2009 23:00	8	1.6	3.6	328	10.8	51.4	36
6/27/2009 0:00	0	0.8	1.8	33	9.5	49.1	43
6/27/2009 1:00	8	1.1	2.5	196	7.6	45.7	AM
6/27/2009 2:00	4	1.6	3.6	263	6.1	43.0	AM
6/27/2009 3:00	13	2.0	4.5	257	7.6	45.7	AM
6/27/2009 4:00	6	2.4	5.4	193	7.5	45.5	AM
6/27/2009 5:00	5	1.9	4.3	173	6.6	43.9	AM
6/27/2009 6:00	9	2.2	4.9	186	7.1	44.8	AM
6/27/2009 7:00	2	2.3	5.1	198	10.2	50.4	AM
6/27/2009 8:00	19	3.0	6.7	237	13.4	56.1	44
6/27/2009 9:00	22	2.7	6.0	243	15.5	59.9	38
6/27/2009 10:00	19	1.9	4.3	277	17.0	62.6	33
6/27/2009 11:00	6	2.7	6.0	265	18.0	64.4	31
6/27/2009 12:00	12	2.7	6.0	280	18.9	66.0	31
6/27/2009 13:00	9	2.6	5.8	265	20.4	68.7	28
6/27/2009 14:00	9	3.2	7.2	272	21.4	70.5	26
6/27/2009 15:00	8	3.7	8.3	287	22.6	72.7	23
6/27/2009 16:00	32	2.4	5.4	353	22.6	72.7	27
6/27/2009 17:00	13	1.7	3.8	11	22.9	73.2	26
6/27/2009 18:00	6	1.8	4.0	4	22.6	72.7	27
6/27/2009 19:00	8	1.2	2.7	16	22.0	71.6	28
6/27/2009 20:00	0	1.2	2.7	337	19.8	67.6	34
6/27/2009 21:00	-4	0.9	2.0	298	14.4	57.9	AM
6/27/2009 22:00	-1	0.8	1.8	249	10.4	50.7	AM
6/27/2009 23:00	-5	1.2	2.7	196	9.8	49.6	AM
6/28/2009 0:00	23	1.3	2.9	160	9.8	49.6	AM
6/28/2009 1:00	5	1.9	4.3	183	9.9	49.8	AM
6/28/2009 2:00	4	1.4	3.1	178	9	48.2	AM
6/28/2009 3:00	9	2.6	5.8	198	9.1	48.4	AM
6/28/2009 4:00	9	2.2	4.9	180	8.9	48.0	AM
6/28/2009 5:00	11	1.7	3.8	192	8.9	48.0	AM
6/28/2009 6:00	4	2.0	4.5	198	9.2	48.6	AM
6/28/2009 7:00	8	2.8	6.3	198	12.4	54.3	AM
6/28/2009 8:00	32	2.4	5.4	200	17.2	63.0	AM
6/28/2009 9:00	8	3.0	6.7	185	20.6	69.1	AM
6/28/2009 10:00	17	3.2	7.2	178	22.6	72.7	AM
6/28/2009 11:00	12	3.0	6.7	176	24.2	75.6	AM
6/28/2009 12:00	6	2.7	6.0	191	25.6	78.1	AM
6/28/2009 13:00	10	2.5	5.6	244	27.1	80.8	AM
6/28/2009 14:00	7	2.4	5.4	263	27.6	81.7	AM
6/28/2009 15:00	190	2.3	5.1	265	28.3	82.9	AM
6/28/2009 16:00	-5	2.4	5.4	264	28.5	83.3	AM
6/28/2009 17:00	0	2.9	6.5	280	28.2	82.8	AM
6/28/2009 18:00	11	2.8	6.3	299	27.6	81.7	AM
6/28/2009 19:00	4	1.9	4.3	314	26.0	78.8	AM
6/28/2009 20:00	8	1.6	3.6	351	23.1	73.6	AM
6/28/2009 21:00	-1	1.3	2.9	80	21.5	70.7	AM
6/28/2009 22:00	11	1.0	2.2	1	18.2	64.8	AM
6/28/2009 23:00	-3	1.1	2.5	266	11.9	53.4	AM
6/29/2009 0:00	6	1.3	2.9	189	11.9	53.4	AM
6/29/2009 1:00	9	1.4	3.1	155	11.8	53.2	AM
6/29/2009 2:00	10	1.4	3.1	163	11.2	52.2	AM
6/29/2009 3:00	8	1.1	2.5	151	10	50.0	AM
6/29/2009 4:00	14	1.0	2.2	157	8.7	47.7	AM
6/29/2009 5:00	10	1.0	2.2	195	7.9	46.2	AM
6/29/2009 6:00	12	1.0	2.2	186	8.4	47.1	AM

Date & Time Mountain Standard Time (data for hour ending)	PM10 Hourly (µg/m³)	Wind Speed Hourly (meters per second)	Wind Speed Hourly (miles per hour)	Wind Direction Hourly (degrees true)	Air Temperature Hourly (Celsius)	Air Temperature Hourly (Fahrenheit)	Relative Humidity Hourly (percent)
6/29/2009 7:00	6	1.3	2.9	196	12.2	54.0	AM
6/29/2009 8:00	32	1.0	2.2	239	15.8	60.4	AM
6/29/2009 9:00	25	0.9	2.0	24	18.9	66.0	AM
6/29/2009 10:00	14	1.4	3.1	355	19.7	67.5	AM
6/29/2009 11:00	16	1.8	4.0	350	21.4	70.5	AM
6/29/2009 12:00	10	1.8	4.0	345	22.7	72.9	AM
6/29/2009 13:00	20	1.6	3.6	351	24.3	75.7	33
6/29/2009 14:00	6	2.0	4.5	344	25.7	78.3	30
6/29/2009 15:00	9	1.5	3.4	31	27.5	81.5	25
6/29/2009 16:00	7	1.9	4.3	5	28.1	82.6	23
6/29/2009 17:00	-1	1.6	3.6	25	27.8	82.0	24
6/29/2009 18:00	17	1.6	3.6	19	27.7	81.9	24
6/29/2009 19:00	13	1.2	2.7	53	26.6	79.9	24
6/29/2009 20:00	7	1.3	2.9	28	24.6	76.3	27
6/29/2009 21:00	0	0.8	1.8	26	20.8	69.4	39
6/29/2009 22:00	-3	0.7	1.6	333	18.3	64.9	42
6/29/2009 23:00	3	0.9	2.0	263	12.1	53.8	73
6/30/2009 0:00	6	0.8	1.8	149	11.3	52.3	74
6/30/2009 1:00	-5	1.2	2.7	149	11.9	53.4	69
6/30/2009 2:00	24	1.2	2.7	160	11.0	51.8	70
6/30/2009 3:00	7	1.4	3.1	145	9.0	48.2	77
6/30/2009 4:00	10	1.2	2.7	159	8.5	47.3	77
6/30/2009 5:00	13	0.8	1.8	183	8.1	46.6	75
6/30/2009 6:00	-5	0.7	1.6	228	7.0	44.6	79
6/30/2009 7:00	32	0.5	1.1	271	10.2	50.4	73
6/30/2009 8:00	13	0.6	1.3	75	14.0	57.2	59
6/30/2009 9:00	32	0.9	2.0	329	17.7	63.9	42
6/30/2009 10:00	16	1.3	2.9	339	19.9	67.8	34
6/30/2009 11:00	18	2.0	4.5	356	21.7	71.1	31
6/30/2009 12:00	14	2.2	4.9	348	22.9	73.2	29
6/30/2009 13:00	13	2.0	4.5	351	24.1	75.4	28
6/30/2009 14:00	8	2.0	4.5	356	25.7	78.3	27
6/30/2009 15:00	15	2.2	4.9	0	26.8	80.2	25
6/30/2009 16:00	5	2.2	4.9	4	26.8	80.2	24
6/30/2009 17:00	15	2.3	5.1	358	26.5	79.7	24
6/30/2009 18:00	10	2.2	4.9	5	25.7	78.3	24
6/30/2009 19:00	8	1.5	3.4	33	24.7	76.5	27
6/30/2009 20:00	4	1.3	2.9	41	22.7	72.9	29
6/30/2009 21:00	0	1.2	2.7	2	20.5	68.9	28
6/30/2009 22:00	-5	0.8	1.8	318	15.6	60.1	47
6/30/2009 23:00	3	0.6	1.3	265	13.4	56.1	61
7/1/2009 0:00	2	0.5	1.1	94	12.1	53.8	69

AH = Flow rate out of limits

AM = Miscellaneous void

BA = Routine maintenance / repairs